USB TravelMike Microphone

(1) USB audio card with standard Sound jacks, (2) Detachable mini boom (3) Speech Equaliser (SQ) and Auto Gain Control (AGC) or Amplifier for professional Speech recognition, Voice or Music recording and Wideband or High Definition (HQ) VoIP with Windows®/MacOS®

1. INTRODUCTION

The release of *Dragon NaturallySpeaking® 12* containing the most powerful speech recognition engine ever --utilising a 22 kHz sampling rate to improve audio quality and recognition accuracy, coincided with the emergence of Wideband or High Definition (HD - 20 kHz) Voice over IP (VoIP) and other 'Unified Communications' accelerating the transition away from conventional low fidelity telephone technology.

SpeechWare aimed to develop a brand new portable microphone to exploit fully the challenge posed by these two nascent developments: **harness the full capability of this remarkable speech engine at long and variable dictation distance (up to an unprecedented 50 cm or 20"); and provide unmatched voice clarity for VoIP users**. Moreover, the performance of this unique portable microphone has to be comparable to that of the best very close range professional headsets; freeing users from the need to wear a headset or being physically tethered to a computer, while dictating or communicating over IP.

Welcome to the USB TravelMike, the award-winning model from this family of unique microphones by SpeechWare. Unlike competing conventional products merely adapted for PC or Mac use; this microphone has been designed and engineered with the support of an international advisory committee with unparalleled experience in microphone technology and speech recognition. We also encourage customer feedback.

This truly "**multipurpose**" device features **two different operational modes**. An industry first **Speech Equaliser (SQ) and Auto Gain Control (AGC) or Amplifier mode (Green LED)**, which is optimised for **long and variable** dictation distance (25 cm to 50 cm / 10" to 20") with **LOW ambient noise**, and a **Normal or HD VoIP mode (Blue LED)**. This latter setting is ideal for:

- **Close** dictation distance (5 cm to 12 cm / 2" to 5") Speech Recognition with **MODERATE ambient noise**;
- The FlexyMike or most alternative headsets, instead of the mini boom, specially with very **HIGH ambient noise;**
- Full duplex (simultaneous Sound in and out) Wideband or High Definition (HD) 20 kHz Internet telephony (VoIP);
- Full duplex HD Video conferencing;
- HD Podcasting;
- Voice and Music recording.

Besides, this model incorporates an industry first detachable 18 cm or 7" mini gooseneck boom, a couple of standard Sound jacks to connect an external microphone, speaker or earset. The TravelMike features the same award winning technology than our TableMike desktop microphone, in a smaller USB card, which has been consistently rated as the **Best in Class for Speech recognition with a "5 Dragon"** by Nuance –the editor of Dragon NaturallySpeaking, as well as by *MacWorld US*: http://www.macworld.com/article/163860/2011/12/choose_the_right_mac_microphone_for_speech_recognition.html. In Europe, the German publication *MacWelt* explicitly highlighted the excellent accuracy of the TableMike with Dragon Dictate 3, along with the freedom of movement during dictation.

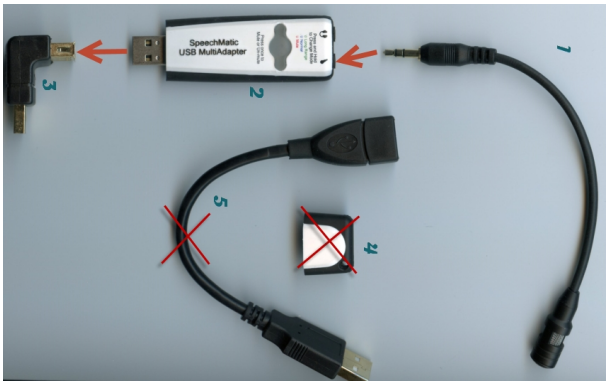
The TravelMike is fully compatible with *Windows® 8, 7, Vista®, XP®, 2000, MacOS® X* and *Linux®* as well as *Dragon NaturallySpeaking®* and other Speech engines. It is the ideal companion for Notebooks, Ultrabooks and Tablet PCs.

2. OPERATING INSTRUCTIONS

2.1. Setting up the TravelMike

The TravelMike is not a traditional desktop microphone like the ones currently available in the market, but rather a multipurpose USB soundcard or adapter that can be configured to work as a portable desktop microphone. Let us get familiar with the contents of the kit:

a) Remove items numbers 1 to 3 from the packaging. Items 4 and 5 are not required for the TravelMike configuration or use but item 4 (the extension cable) can come in handy if you do not want to block a USB port when using the multipurpose adapter (USB soundcard) with other analog headsets.



b) Insert #1 (the microphone boom) plug into the right microphone input jack on #2 of the SpeechMatic USB MultiAdapter (soundcard). Note that the microphone input jack includes a microphone symbol to prevent possible confusion.

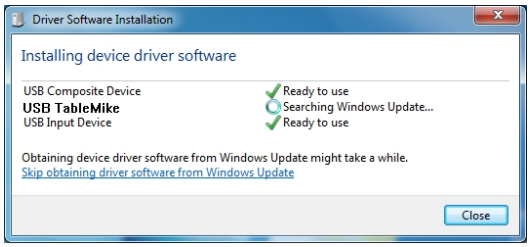
c) Insert #2 into #3 (90° USB joint and insert #3 into a USB port on your notebook/tablet computer. Adjust the bendable microphone boom by aiming it towards your mouth.

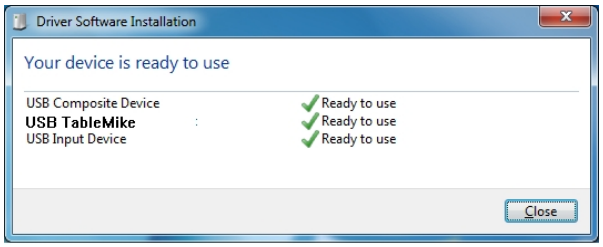
d) Unlike most other USB soundcards, the SpeechMatic USB MultiAdapter does not automatically turn on when inserted into a USB port. When waking up your computer from hibernation, booting up your computer or simply inserting the MultiAdapter, the power button will turn **Red** to signify that is simply receiving power while remains in off or muted position. Hence, press the button one time to power the soundcard in the long range **Green light** mode (with all built-in features like Speech Equalizer – EQ, Auto Gain Control – AGC, etc.). A second push and hold for a couple of seconds of the button will trigger the short or normal range **Blue light** mode (which turns the unit on but bypasses all aforementioned features).

e) Whether you choose **Green** or **Blue** modes depends on the use of the device (as a TravelMike at long or short distance and a USB adapter with a headset microphone) and is discussed in detailed hereunder. Normally, **Green** is meant for the TravelMike positioned at 30 cm or 12 inches or more from the user; while **Blue** is designed for the TravelMike positioned at shorter distances, overly sensitive headset microphones and VoIP (echo cancellation). Whatever the case, as with all new USB soundcards and microphones, **run the Dragon Audio Check or create a brand new user Profile for maximum performance, specially if using the Green mode.**

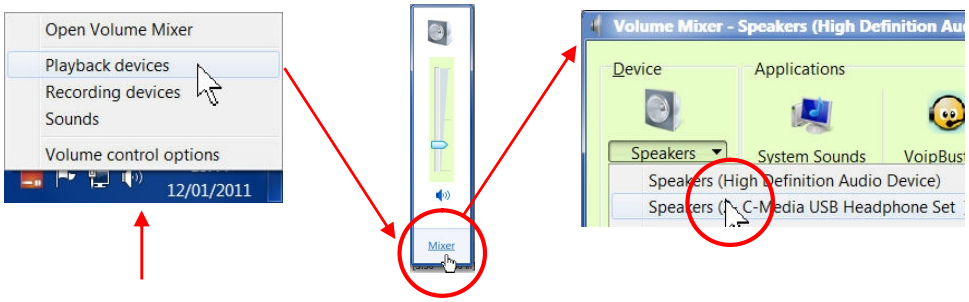
2.2. Installation procedures for Windows® 8, 7, Vista®, XP®, 2000 & Mac OS® X or higher

Directly insert the SpeechMatic USB MultiAdapter to a USB port of the computer with care. **DO NOT USE** any multiple USB Splitter or USB Hub device to connect to the computer. The special USB extension cable (#4) is provided in case it is needed. The Indicator Light (LED) of the unit will light up in **Red**. If the unit does not initialise - check that the card is properly inserted in the USB port. Wait a few seconds for *Windows*® to automatically install the corresponding USB sound drivers:

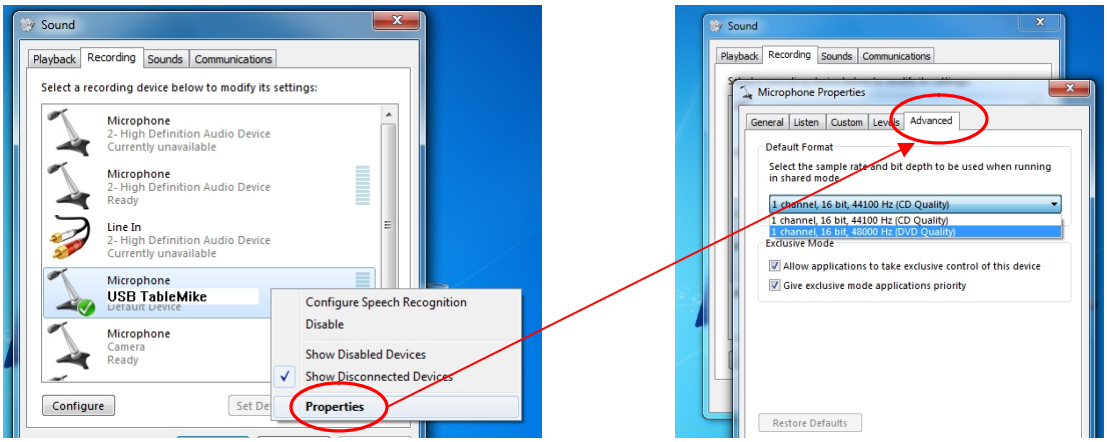




After completion of the installation, *Windows*® will select the **'SpeechMatic USB MultiAdapter'** ('USB TableMike' in the images above) as the Recording and the Playback Device, and will make it the default for **ALL** applications. Hence, **you will not hear any playback if a Speaker, Headset or Earset is not plugged in the Sound out or Headset jack** of the card. To change this setting, with *Windows*® *7*, right-click the **Speaker Icon** in the lower right hand corner of the *Windows*® System Tray (Systray) and choose **'Playback devices'**. Click the **'Mixer'** link to open the **'Volume Mixer'**. Select **'Speakers'** and choose another available Device to be used (normally the built-in PC Speaker). The procedure is similar under *Windows*® *8, Vista®, XP*® and *2000.*

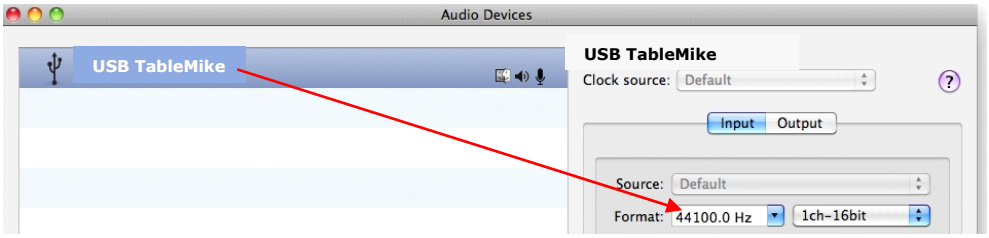


You can also go to **'Control Panel'**, **'Sound'** and select the **'Playback'** tab to achieve the same result. Also, in the **'Sound'** window click the **'Recording'** tab and check that the **'SpeechMatic USB MultiAdapter'** ('USB TableMike' in the image hereby) is the **'Default Device'**. Select and click-right on it. Click **'Properties', 'Advanced'** and choose **'1 channel, 16 bit, 44100 Hz --or 48000 Hz (DVD Quality)'**:



2.3. Additional instructions for *Mac OS® X* or higher

Go to the **Utilities** folder in your **Applications** folder, and launch '**Audio MIDI Setup**'. Select **'SpeechMatic USB MultiAdapter'** from the list of devices. Click on the '**Input**' tab, then choose **'41000.0 Hz'** and **'1ch-16bit'** from the **Format** menu. Quit the Setup.



When you use *Dragon Dictate®*, choose **Tools > Microphone Setup** to calibrate the USB TravelMike. When you do this, click on the red icon to enable the microphone, **then wait for about 30 seconds in silence until the gain setting reaches the maximum level of 99**. At this point, start reading the text to have *Dragon Dictate®* adjust the TravelMike's volume properly.

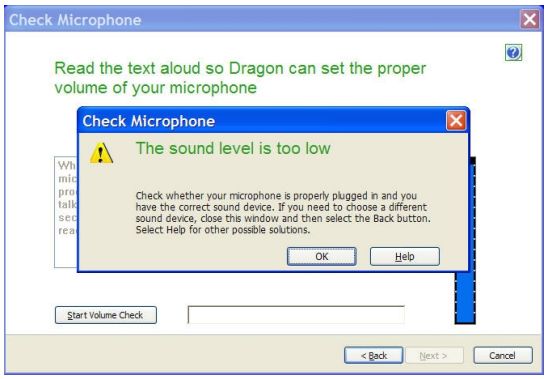
3. Working with *NaturallySpeaking®* under *Windows® 8, 7, Vista®* or *XP®*

Due to the uniqueness of the built-in Speech Equaliser (SQ) and Auto Gain Control (AGC) or Amplifier for best performance and recognition accuracy at **long dictation distance (25 cm to 50 cm / 10" to 20") and in an environment with low noise, we strongly recommend you create a NEW Dragon User Profile USB with the Green LED** operational and **use it for a few hours,** in this way:

a) **Press and Hold** the **'Push'** button on the body of the card and the **Red LED** will change and remain **Green** - Speech Recognition usage at long and variable range or dictation distance with LOW ambient noise.

b) In **Green LED** Mode, the microphone will substantially increase both voice pick-up and noise cancelling levels to deliver high recognition accuracy from 25 cm to 50 cm (10" to 20") range, depending on your voice and ambient noise. Ideally, place and keep yourself at about 25 cm (10") from the microphone element. Note that the Automatic Gain Control (AGC) will automatically adjust the signal output volume depending upon your distance from the microphone element. As the distance increases, the volume output increases. However, this can cause a problem because the AGC is an amplification process and amplifying the output also amplifies any background noise or sounds, which may provoke some '*Please say that again*' or '*???*' messages from NaturallySpeaking®. These messages do not affect accuracy.

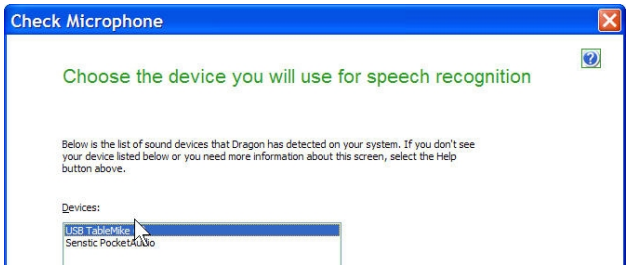
c) Note that *NaturallySpeaking®* may also display the following Error messages if the aforementioned ranges and conditions are not observed. Occasionally, you may need to place yourself closer to the microphone during the **'Audio Check'** to pass the Audio Setup Wizard which is tuned for headsets -- then dictate at the recommended distance:


Check Microphone
Read the text aloud so Dragon can set the proper volume of your microphone
Check Microphone
The sound level is too low
Check whether your microphone is properly plugged in and you have the correct sound device. If you need to choose a different sound device, close this window and then select the Back button. Select Help for other possible solutions.
OK
Help
Start Volume Check
< Back
Next >
Cancel

Check Microphone
Check Microphone
The sound quality check failed
Try running Check Microphone again. If this warning re-appears, there may be a problem with your MS Windows sound system.
Having the wrong audio source selected is a common problem. Select Help for information on selecting the correct audio source. Other possible causes include: speaking too softly, too much background noise or not having your microphone plugged in properly.
You may continue on, however, you may receive poor accuracy.
Select Help for further information.
OK
Help
< Back
Finish
Cancel

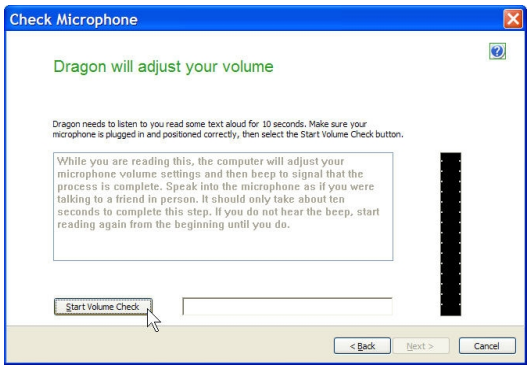
In case of **MODERATE** ambient noise (as well as VoIP use) **you are recommended to switch to Blue LED mode and shorten the dictation distance (to about 12 cm / 5")**. The latter is available when **pressing and holding** again the **'Push'** button on the body of the card (the LED turns **Blue**). In this case, simply **calibrate the microphone** (open the existing User Profile, click in the **'Audio'** menu and then select **'Check Microphone…'**). With very **HIGH** ambient noise, **connect a headset in the card and remain in Blue mode**. Whatever procedure you choose *NaturallySpeaking*® will present you with the following windows:

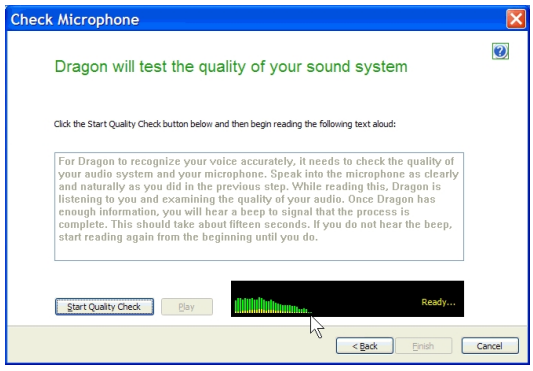
a) First, NaturallySpeaking® will check your sound devices. If you only have one in your PC, you will not get the first window because you do not need to make a selection. If you have more than one soundcard installed, it will ask you to choose which one you wish to utilise. Select **'SpeechMatic USB MultiAdapter'** ('USB TableMike' in the image hereby) and click **'Next'** in the first window. Position yourself within the recommended distance from the TravelMike microphone capsule depending on your LED color mode and ambient noise. Click **'Next'** again:


Check Microphone
Choose the device you will use for speech recognition
Below is the list of sound devices that Dragon has detected on your system. If you don't see your device listed below or you need more information about this screen, select the Help button above.
Devices:
USB TableMike
Senstic PocketAudio

Check Microphone
Position your microphone properly
Correct positioning of your microphone is one of the most important factors in receiving good dictation accuracy. The microphone should be about an inch away from your mouth and off to one side. The listening side (white dot) should be facing your mouth. Use the pictures below as a guideline.
< Back
Next >
Cancel

b) Click the '**Start Volume Check**' button and read the text until it turns grey. Read at your normal pace and voice level, making short pauses (3 to 5 seconds) at each punctuation sign. In this way, both your voice and pauses (silence) will be sampled. **DO NOT SHOUT OR YELL** if the **'Gain'** bar at the right hand side of the first window does not move or moves very little. After the text turns grey again, click **'Next'**. Repeat the previously outlined process in the second window by clicking **'Start Quality Check'** and then **'Finish'**:


Check Microphone
Dragon will adjust your volume
Dragon needs to listen to you read some text aloud for 10 seconds. Make sure your microphone is plugged in and positioned correctly, then select the Start Volume Check button.
While you are reading this, the computer will adjust your microphone volume settings and then beep to signal that the process is complete. Speak into the microphone as if you were talking to a friend in person. It should only take about ten seconds to complete this step. If you do not hear the beep, start reading again from the beginning until you do.
Start Volume Check
< Back
Next >
Cancel


Check Microphone
Dragon will test the quality of your sound system
Click the Start Quality Check button below and then begin reading the following text aloud:
For Dragon to recognize your voice accurately, it needs to check the quality of your audio system and your microphone. Speak into the microphone as clearly and naturally as you did in the previous step. While reading this, Dragon is listening to you and examining the quality of your audio. Once Dragon has enough information, you will hear a beep to signal that the process is complete. This should take about fifteen seconds. If you do not hear the beep, start reading again from the beginning until you do.
Start Quality Check
Play
Ready...
< Back
Finish
Cancel

To ensure that you get the most optimal signal-to-noise ratio, run the **'Check Microphone'** process in the environment in which you will be dictating. That is, if you are going to be dictating into a low or moderate noise environment, be sure that you run it under those conditions. If your background environment changes during the course of the day, always rerun it again. Also, it is recommended that you rerun the process periodically if you are continuously dictating for long periods of time because both your environment and voice tend to change. This will ensure that your audio setup remains optimal. Occasionally, you may need to place yourself a bit closer to the microphone element during the **'Check Microphone'** to pass the Audio Setup Wizard, which is tuned for headset microphones -- then dictate at the recommended distance. With MODERATE ambient noise change to **Blue LED**. You can even plug a high quality noise rejection headset microphone in the

back of the unit, like our unique FlexyMikes Single (SE) or Dual Ear (DE) models which are optimised for maximum performance with this soundcard (http://www.tablemike.com/en/flexymike-single-best-headset-speech-recognition.php or either http://www.tablemike.com/en/flexymike-dual-best-headset-speech-recognition.php) for HIGH ambient noise.

If you wish to use the USB TravelMike under **Green LED** and LOW ambient noise with your current User Profile, you MUST ALWAYS perform an additional Extended Training. This is because the audio characteristics of the USB TravelMike are significantly different from any other type of USB microphone, as you can easily hear when playing back your dictation. In principle, it may happen that the overall accuracy degrades slightly from what you were getting with your previous microphone and current Profile. It is also important to understand that it may take a little time for your current Profile to adjust to your previous performance and accuracy. In addition, each user is different and some may not require this Extended Training and period of use, while others may. However, do not over train. Otherwise, your Profile can become excessively large which can effect overall performance (i.e., increase latency) and will not gain you any improvement in accuracy. **DO NOT SHOUT OR YELL** either when training or dictating...

If you wish to use the USB TravelMike as a high quality voice recorder; instead of a digital one, to automatically transcribe your recordings, configure it under Normal mode (Blue LED) for close dictation and download our free and forthcoming TableMike Recorder application or any other from the web. Save your recording in a standard sound format such as: wav, MP3 or wma with at least 16 bits, 11,025 Hz, mono. NaturallySpeaking® 12 or higher will transcribe more effectively recordings made with a 22,000 Hz sampling rate. Save your recording in a standard sound format such as: wav, MP3 or wma with at least 16 bits, 11,025 Hz, mono. You may also want to download and evaluate our demo *QuickTypist* application to transcribe and edit your recordings, as well as our free QuickDicta Notes for iPhone, Android and BlackBerry. The former application contains enhanced transcription traits to complement NaturallySpeaking®: http://www.quicktypist.com/en/index.php

4. Summary of recommendations for best use and performance of the USB TravelMike with the bundle gooseneck microphone

Usage	Recommendation	Comments
1. Speech Recognition with a **New** User Profile and **LOW** ambient noise	• Set the LONG-RANGE Mode [**Green** LED] • Calibrate and always run a General and Extended Trainings	Keep the dictation distance at about 25 cm [10”] for maximum accuracy. Occasionally, you may need to place yourself closer to the microphone during the 'Check Microphone' to pass the Audio Setup. Train...
2. Speech Recognition with an **Existing** User Profile and **LOW to MODERATE** noise	• Set the NORMAL/VOIP Mode [**Blue** LED] • Calibrate Microphone and Run an additional Extended Training with the current Profile	Keep the dictation distance at 5 cm to 12 cm [2” to 5”] for maximum accuracy
3. Speech Recognition with **HIGH** ambient noise	Set the NORMAL/VOIP Mode [**Blue** LED] and plug a good noise cancelling headset microphone in the back of the base, such as our FlexyMike	
4. Telephony and HD Voice over IP, as well as recording	Set the NORMAL/VOIP Mode [**Blue** LED] and keep the unit at the recommended 12 cm [5”] distance	Using the LONG-RANGE Mode [**Green** LED] for this purpose may generate undesirable echo!

5. Optional recommended accessories to complement your working experience with the USB TravelMike

- Optional USB base or docking station, providing two additional USB ports and universal Flash memory reader (easier transfer of digital recordings for transcription)
- Optional 180º pivoting USB adapter (under development)
- Optional thumb sized, smaller and pivoting microphone boom, ideal for Voice over IP (under development)
- Optional USB speaker for the USB base (under development)
- SpeechWare FlexyMikes: the lightest and most comfortable microphone headset range in the market to connect into the built-in Sound out port for very noisy environments